

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A vehicle seat load measuring apparatus comprising:
~~a load sensor for detecting a load applied to the vehicle seat by an occupant seated in the seat, wherein the load sensor includes a connector receiving portion having a fastener and a sensor plate configured to be distorted due to the load applied on the seat wherein one or more conductors are formed on the sensor plate;~~
~~a control unit connected to the load sensor by a cable and configured to calculate the load applied to the seat on the basis of a detection signal received from the load sensor;~~
~~a plurality of strain gauges mounted on the sensor plate adjacent to the connector receiving portion, for detecting the distortion of the plate; and~~
~~a connector attached to the sensor plate adjacent to the plurality of strain gauges and adapted to removably receive an end of the cable, wherein the connector includes one or more terminals that are electrically connected to one or more conductors formed on the sensor plate.~~
~~a connector casing, fastened to the connector receiving portion with the fastener;~~
~~a connector attached to the connector casing, adapted to removably receive an end of a cable, and having one or more terminals fitted into the connector casing, wherein the one or more terminals are electrically connected to the one or more conductors formed on the sensor plate; and~~
~~a control unit connected to the connector via the cable and configured to calculate the load applied to the seat on the basis of a detection signal received from the load sensor.~~
2. (Cancelled)

3. (Original) The apparatus of Claim 2, further comprising:
a base frame, upon which said load sensor is disposed, which is fixed to a vehicle floor or a lower member of said vehicle seat, wherein the base frame receives the load applied on said vehicle seat.

4. (Previously Presented) The apparatus of Claim 3, wherein said base frame includes a protector for protecting at least a part of said load sensor including said connector.

5. (Previously Presented) The apparatus of Claim 4, wherein said protector includes an open side facing in at least one of the vertical direction, the longitudinal direction, the lateral direction, the diagonal direction from upper front to lower back or from lower front to upper back, the diagonal direction from upper left to lower right or from lower left to upper right, and the diagonal direction from forward left to backward right or from backward left to forward right in a state mounted to the vehicle, and the entry of said ~~sensor-side~~ connector faces the open side of said protector.

6. (Previously Presented) The apparatus of Claim 4, wherein said protector is formed by bending a band-like plate to have a protecting portion surrounding at least a part of said load sensor including said connector, and mounting portions to be attached to said base frame.

7. (Original) The apparatus of Claim 3, further comprising:
a plurality of front-side and rear-side rail brackets which are disposed near the front and rear ends of said base frame, respectively;
a seat rail connected to said front-side and rear-side rail brackets which slides in the longitudinal direction of the vehicle; and
a plurality of arms which are disposed on a front portion and a rear portion of said base frame, respectively to extend in the longitudinal direction.

8. (Original) The apparatus of Claim 7, wherein each of said plurality of arms is provided at its one end with a press portion for transmitting force to said plurality of strain

gauges and at its other end with a connecting portion relative to each of said plurality of rail brackets.

9. (Original) The apparatus of Claim 7, further comprising:

a plurality of protective mechanisms that are disposed around said plurality of front and rear rail brackets, respectively, such that when the load applied between said base frame and said plurality of rail brackets exceeds a predetermined value, said plurality of protective mechanisms directly transmit the excessive load between said base frame and said plurality of rail brackets not through said plurality of arms.

10. (Original) The apparatus of claim 9, further comprising a reinforcing member disposed on said plurality of protective mechanisms at the rear-side rail bracket for providing reinforcement against the load in a direction of lifting said base frame.

11-16. (Cancelled)

17. (Currently Amended) A vehicle seat load measuring apparatus comprising:

a load sensor for detecting a load applied to the vehicle seat by an occupant seated in the seat, wherein the load sensor includes a connector receiving portion having a fastener and a sensor plate configured to be distorted due to the load applied on the seat wherein one or more conductors are formed on the sensor plate;

~~a control unit configured to calculate the load applied to the seat on the basis of a signal received from the load sensor;~~

~~a cable connected to the control unit at one end and to the load sensor at another end;~~

a plurality of strain gauges mounted on the sensor plate adjacent to the connector receiving portion, for detecting the distortion of the plate; and

~~a sensor side connector mounted to the sensor plate adjacent to the plurality of strain gauges and adapted to removably receive a cable side connector attached to the another end of the cable.~~

a connector casing, fastened to the connector receiving portion with the fastener;

a connector attached to the connector casing, adapted to removably receive an end of a cable, and having one or more terminals fitted into the connector casing, wherein the one or more terminals are electrically connected to the one or more conductors formed on the sensor plate; and

a control unit connected to the connector via the cable and configured to calculate the load applied to the seat on the basis of a detection signal received from the load sensor; and
a cable connected to the control unit at one end and to the load sensor at another end.